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Heuristic Evaluation and Usability Assessment of the PRISM Web-Based Academic Monitoring System Among Students at the University of Science and Technology of Southern Philippines: A User-Centric Study

Fritzcel P. Tapay[1*], Mary B. Acop[2], Arah Jane Balangitao[3], Jendy D. Blase[4], Joshua Paul T. Burgos[5], Charlene O. Caliso[6], Johnful P. Flores[7], Jetrel L. Jarantilla[8], Vivian Fe Princess C. Mabalod[9], Queenie M. Malicay[10], Romil R. Morales Jr.[11], Faijah N. Moksir[12], Kian Noval[13], Nesam Mae C. Paler[14] & Ginbert A. Fernandez[15]

[1-15]Department of Information Technology, University of Science and Technology of Southern Philippines – Oroquieta, Oroquieta City, Misamis Occidental, Philippines. Corresponding Author Email: tapsfritz@gmail.com[*]

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ABSTRACT

This study assessed the usability and user satisfaction of the PRISM Web-Based Academic Monitoring System used by students at the University of Science and Technology of Southern Philippines (USTP). In particular, the study sought to ascertain the level of usability, the level of user satisfaction, and the existence of a significant relationship between these variables. The study utilized a descriptive-correlational research design, wherein 1,000 students served as respondents. Mean and Pearson's r were used in analyzing the data gathered from the validated survey questionnaire. The findings revealed that the PRISM system has a very high level of usability (M = 4.22) and high level of user satisfaction (M = 4.20). In addition, there is a significant and strong positive relationship between usability and user satisfaction ($r = 0.828$, $p < 0.05$), thus rejecting the null hypothesis. This implies that as usability becomes higher, user satisfaction also becomes higher. The study concluded that the PRISM Web Application is efficient and satisfactory in providing academic services. Continuous enhancement of the system is necessary, especially in terms of enhancing its navigability and information access in order to further satisfy users' needs.

Keywords: Usability; User Satisfaction; Prism Web Application; Academic Information System; Web-Based Academic System; Technology Acceptance Model; Student Information System; User Experience; Descriptive-Correlational Research; System Usability.

1.0. Introduction

The use of information technology in higher education, which has become a standard practice, has changed the way universities handle academic records and student services. Universities use online academic information systems to handle student records, which include enrolment records, grade data, and schedule information. Students can access academic information through these systems from any location at any time, which leads to better efficiency and communication, and academic performance tracking.

The digital platforms which people now use as common tools have created a need for academic monitoring systems which help students track their academic progress. Almaiah et al. (2020) found that web-based systems which provide interactive academic services enable students to better engage with their studies while increasing their satisfaction with academic resources. The universities currently use these systems to handle their academic and administrative operations throughout the entire institution.

In the Philippines, higher education institutions have adopted web-based academic systems to improve service delivery and streamline academic processes. The systems provide students with essential academic services but they still face problems because of difficulties in system operation and system access. The students face difficulties in finding information and using system functions because of three main obstacles which include poor interface design and complex navigation and system inefficiencies.

At the University of Science and Technology of Southern Philippines (USTP), the PRISM Web Application serves as the central platform for academic monitoring. It allows students to access key services such as enrolled subject,

grades, announcements, and academic requests. Through this system, students can monitor their academic progress and manage their academic responsibilities.

Despite its functionality, the PRISM system presents students with three obstacles which include navigation problems and information access delays and feature usage difficulties. The usability problems of a system will lead to two negative results because they will create bad user experiences and decrease user satisfaction.

Although PRISM plays an important role in academic monitoring, there is limited empirical research evaluating its usability and its effect on user satisfaction among USTP students. This lack of system-specific evaluation creates a gap in understanding how effectively the platform meets the needs of its users.

Therefore, this study aims to assess the usability of the PRISM Web Application and determine its relationship with user satisfaction among USTP students.

1.1. Statement of the Problem

The PRISM Web Application is widely used by students of the University of Science and Technology of Southern Philippines (USTP) for academic monitoring. Students who encounter difficulties with the system experience problems which include navigation difficulties and system performance issues and difficulties in accessing academic resources. The existing research fails to provide sufficient evidence which shows how USTP students who use the PRISM Web Application system experience user satisfaction.

Specifically, this study seeks to answer the following questions:

1. What is the profile of the respondents in terms of:
    - Year Level
    - Program/Course
    - Frequency of using the PRISM Web Application
2. What is the level of usability of the PRISM Web Application?
3. What is the level of user satisfaction with the PRISM Web Application?
4. Is there a significant relationship between the usability of the PRISM Web Application and user satisfaction among USTP students?

1.2. Hypotheses of the Study

Null Hypothesis (H_0):
There is no significant relationship between the usability of the PRISM Web Application and user satisfaction among USTP students.

Alternative Hypothesis (H_1):
There is a significant relationship between the usability of the PRISM Web Application and user satisfaction among USTP students.

1.3. Study Objectives

To assess the relationship between usability and user satisfaction of the PRISM Web Application among USTP students. Specifically, the study aims to:

1) To assess the level of usability of the PRISM Web Application among USTP students.
2) To determine the level of user satisfaction with the PRISM Web Application among USTP students.
3) To analyze the relationship between usability and user satisfaction of the PRISM Web Application among USTP students.
4) To identify the usability features of the PRISM Web Application that contribute to user satisfaction among USTP students.
5) To provide recommendations for improving the usability and overall user experience of the PRISM Web Application.

1.4. Significance of the Study

The findings of this study will be beneficial to the following:

- **Students**

The study helps students by finding system problems which harm usability and satisfaction, the results of which will enhance academic system experience.

- **University Administration**

The results provide insights into system performance and areas for improvement in the PRISM Web Application.

- **System Developers**

This study serves as a guide for improving system design, usability features, and user interface enhancements.

- **Future Researchers**

This study provides a reference of future researcher for future research related to academic information systems, usability, and user satisfaction.

1.5. Scope and Limitations

This study focuses on evaluating the usability and user satisfaction of the PRISM Web Application among selected USTP students. It specifically examines usability in terms of ease of use, navigation, interface design, and accessibility of information, while user satisfaction is measured in terms of system performance, usefulness, reliability, and overall experience.

The study is limited only to students who have used the PRISM system. It does not include faculty members, administrators, or other institutional users. The research is also limited to quantitative data gathered through survey questionnaires and does not include qualitative interviews or system source code analysis.

1.6. Definition of Terms

The following terms are defined operationally for better understanding of the study:

- **Usability**

Refers to the ease of use, navigation, accessibility, and functionality of the PRISM Web Application as experienced by the users.

- **User Satisfaction**

Refers to the level of contentment of students when using the PRISM Web Application in performing academic-related tasks.

- **PRISM Web Application**

A web-based academic monitoring system used by USTP students to access enrollment, grades, announcements, and academic services.

- **Academic Monitoring System**

A digital platform used to track and manage students' academic records and progress.

- **Respondents**

Selected USTP students who participated in the study and provided responses to the survey questionnaire.

2.0. Literature Review

Academic institutions need web-based systems because they require digital tools to replace their existing manual procedures. The systems provide educational institutions with a unified platform which enables them to conduct all their academic data tasks ranging from grade management to student performance assessment and enrollment monitoring. The research conducted by Makkaraka et al. (2023) shows that the organizations which adopt web-based systems experience improved operational efficiency through decreased manual mistakes and better access to academic records. According to Rosdiana et al. (2025) the academic monitoring systems enable institutions to assess performance better by organizing data into centralized systems. Educational institutions today use digital technologies which enable them to enhance their educational services through existing systems. Mabotha and Ngcamu (2026) emphasized that digital transformation in higher education improves institutional performance, restructures academic processes, and enhances access to digital services through the effective use of technological tools and systems. Alkhateeb and Abdalla (2023) found that service quality, information quality, and system quality significantly influence students' satisfaction with university portals. The study also revealed that perceived usefulness plays an important mediating role in enhancing students' satisfaction with academic information systems. Almaiah et al. (2020) reported that organizations encounter persistent system performance difficulties and user experience challenges because they deal with system downtime issues and their integration problems and their restricted ability to customize system functions. Raka and Setyohadi (2023) emphasized that website usability and interface design significantly affect user satisfaction and overall user experience. Their study showed that clear and user-friendly website interfaces improve usability evaluation results and help meet users' needs effectively.

Usability determines system performance of academic information systems which need to meet this requirement for efficiency. The system enables users to complete tasks quickly through its simple operational design. According to Alqurni (2023), highly usable systems enable users to accomplish tasks efficiently, minimize errors, and improve overall user experience through clear and user-friendly interface design. Users experience usability problems according to Zainuddin et al. (2022) because they encounter difficulties with system interfaces and navigation features. Usability assessment methods which include System Usability Scale should be used to discover system weaknesses according to Suria (2023). Users who struggle to understand system features may experience decreased usability because system complexity becomes problematic for them according to Alboaneen et al. (2022). Academic systems evaluation requires user satisfaction as a vital assessment standard. According to Panyahuti et al. (2024) user satisfaction depends on system quality and perceived usefulness as the two determining factors. Rajeh et al. (2021) found that students' satisfaction with e-learning systems significantly influences their continued intention to use digital academic platforms. The research carried out by Pauji et al. (2023) found out that student users reported higher levels of satisfaction where the academic online systems had high-performance levels. The satisfaction levels of the users are determined by their perception about the ease of using the system and its benefits; thus, users will go ahead to use the product based on Umar et al. (2024). The research conducted by Ardiansyah et al. (2024) proved that automated systems and improved data accuracy improve users' experience resulting in higher satisfaction levels.

Users' satisfaction with an information system is based on its performance, which, in turn, is affected by its efficiency. Agustina et al. (2022) and Suria (2023) established that improved usability leads to higher user satisfaction which usability problems create negative effects on user experience. The findings emphasize the need to develop systems which focus on the user experience by making systems that meet user requirements.

Research studies mainly investigate general academic systems instead of specific institutional platforms although research studies on this topic exist. The research investigates PRISM which is a web-based academic monitoring system used at USTP but has been studied insufficiently up to the present. The study will evaluate two factors: user satisfaction and usability assessment while examining how these two factors interact with each other.

Table 1. Comparative Analysis Between Traditional Academic System and the PRISM Web-Based Academic Monitoring System in Terms of Accessibility, Navigation, Performance, and Usability.

Feature	Traditional / Legacy System	Modern Web-Based System (PRISM)	Impact on Usability and User Satisfaction
Access to Information	Limited access; requires physical presence or manual process	Anytime, anywhere access via web application.	Improves convenience and increases user satisfaction.
System Navigation	Complex and difficult to use.	Simple, user-friendly, and easy to navigate.	Enhances usability and reduces user difficulty.

System Performance	Slow response and delays in retrieving data.	Fast and efficient system performance.	Increases satisfaction due to better user experience.
Usability Design	Not user-centered; limited interface design.	Designed for ease of use and accessibility.	Leads to higher usability and overall satisfaction.

3.0. Methodology

3.1. Research Design

This study used a quantitative descriptive–correlational research design to evaluate the usability of the PRISM Web Application and the user satisfaction of students at the University of Science and Technology of Southern Philippines (USTP).

The descriptive method was used to determine the level of usability and user satisfaction based on the responses of the participants. This method allows the researchers to summarize and describe the characteristics of the variables under study.

The correlational method was used to examine the relationship between usability and user satisfaction. This method determines whether a significant relationship exists between the two variables and measures the strength of that relationship.

3.2. Theoretical Framework

The research relies on the Technology Acceptance Model (TAM) which explains the process through which users adopt and operate a system based on its perceived operational simplicity and its perceived value. Perceived ease of use describes the operational simplicity of a system, while perceived usefulness describes the system's ability to assist users in reaching their objectives.

The study defines perceived ease of use through the assessment of PRISM Web Application usability, whereas user satisfaction serves as the measurement for perceived usefulness. The user satisfaction measurement shows that users will perceive the system as useful when they find the system easy to use. The theory links PRISM Web Application usability to user satisfaction for USTP students at a statistically significant level according to the existing research evidence.

3.3. Conceptual Framework

This study is anchored on the relationship between system usability and user satisfaction.

- **Independent Variable (IV):** Usability of PRISM Web Application
- **Dependent Variable (DV):** User Satisfaction

The framework assumes that the usability of the system is significantly related to user satisfaction. If the system is easy to use, well-designed, and accessible, users are more likely to be satisfied.

3.4. Location of the Study

The research was performed at the University of Science and Technology of Southern Philippines (USTP). The study participants included university students who use the PRISM web application for academic monitoring purposes.

The PRISM system is a university web application used by students to access important academic information such as:

- Subject enrollment.
- Grades.
- Announcements
- Academic updates

The university environment provides an appropriate setting for evaluating the usability and user satisfaction of the PRISM system since students regularly interact with the platform for academic purposes.

The research used a survey questionnaire as the primary data collection instrument, and statistical analysis was used to interpret the collected data.

3.5. Respondents of the Study

The respondents of the study consisted of selected USTP students from different year levels and academic programs who actively use the PRISM web application.

A total of 1,000 respondents participated in the study. The respondents were selected using convenience sampling, as data were collected through both online (Google Forms) and printed **s**urvey questionnaires distributed to available students.

The selection of respondents was based on the following criteria:

- Currently enrolled USTP students.
- Users of the PRISM Web Application.
- Willing to participate in the survey

The respondents came from different academic programs and year levels, including first year, second year, third year, and fourth year students. This ensured that the study captured diverse perspectives from students with varying levels of experience in using the PRISM system.

3.6. Research Instrument

The researchers used a structured survey questionnaire as the primary instrument for data collection. The questionnaire was designed to assess the usability of the PRISM Web Application and the level of user satisfaction among students of the University of Science and Technology of Southern Philippines (USTP).

The instrument consisted of three parts:

Part I. Personal Profile

This section gathered relevant demographic and academic information of the respondents, including:

- Year Level
- Program/Course
- Frequency of using the PRISM Web Application

The questionnaire contained extra personal data which included name, age, gender, and contact information for documentation needs but the data remained protected through strict confidentiality standards and the analysts did not use it for their data examination.

Part II. Usability of the PRISM Web Application

This section contained statements that measured the usability of the PRISM Web Application based on the respondents' experience. The items focused on the following aspects:

1. The PRISM web application is easy to use.
2. The interface of the PRISM web application is clear and understandable.
3. I can navigate the features of the PRISM web application without difficulty.
4. The PRISM web application allows easy access to enrolled subjects.
5. The PRISM web application allows easy access to grades.
6. The PRISM web application provides access to university announcements.
7. The PRISM web application can be used to monitor academic information.
8. The PRISM web application functions properly when accessed.

Part III. User Satisfaction

This section included statements that assessed the level of satisfaction of the respondents when using the PRISM Web Application. The items focused on:

1. I am satisfied with my experience using the PRISM web application.
2. The PRISM web application provides academic information effectively.
3. I use the PRISM web application when checking academic updates.
4. I feel comfortable using the PRISM web application.
5. The PRISM web application is one of the platforms I use for academic purposes.
6. The PRISM web application is part of my academic monitoring activities.
7. I would continue using the PRISM web application if it remains available.

3.7. Scaling Method

The questionnaire utilized a 5-point Likert scale to measure the responses of the participants:

Table 2. Five-Point Likert Scale Used in Measuring the Responses of the Respondent.

Scale	Description
5	Strongly Agree
4	Agree
3	Neutral
2	Disagree
1	Strongly Disagree

3.8. Validity and Reliability

The experts evaluated the questionnaire items to confirm their content validity through their assessment of the items' clarity and relevance and appropriateness. The researchers used Cronbach's Alpha method to evaluate the instrument's internal consistency for reliability assessment. This ensures that the items consistently measure usability and user satisfaction.

3.9. Data Collection Procedure

The researchers followed a systematic procedure in collecting the data for the study. The researchers started their study by obtaining the needed permission from the appropriate authorities to conduct the survey among students of the University of Science and Technology of Southern Philippines (USTP). The researchers began their survey distribution process after obtaining permission by providing respondents access to both online and printed questionnaire formats. The online survey was conducted through Google Forms while students on campus received printed questionnaires which were distributed to them. The respondents received study purpose information before they were told about their voluntary participation rights to the study. The researchers informed participants that all information collected would remain confidential and researchers would use it exclusively for academic purposes. The researchers collected completed questionnaires from participants and organized the collected responses to their data analysis work. The researchers processed the gathered data by checking its contents and encoding it to prepare for statistical analysis.

3.10. Ethical Considerations

The researchers ensured that ethical standards were followed throughout the study. Participation was voluntary, and informed consent was obtained from all respondents.

Respondents were assured that their responses would remain confidential and would be used solely for academic purposes. Personal information collected was not included in the analysis. Participants were also allowed to withdraw from the study at any time without any consequences.

3.11. Statistical Treatment of Data

The data gathered from the respondents were analyzed using appropriate statistical tools to answer the research questions of the study. The selected statistical tools were appropriate for a descriptive–correlational research design.

3.11.1. Frequency and Percentage

Frequency and percentage were used to describe the profile of the respondents in terms of year level, program/course, and frequency of using the PRISM Web Application.

$$\text{Percentage} = \frac{f}{N} \times 100\#$$

Where:

- f= frequency
- N = total number of respondents

3.11.2. Mean

The mean was used to determine the level of usability of the PRISM Web Application and the level of user satisfaction among the respondents

$$\bar{x} = \frac{\sum x}{N}$$

for group data:

$$\bar{x} = \frac{\sum (f * x)}{N}$$

Where:

- $\bar{x}$ = mean
- f = frequency (count)
- x = rating value (1–5)
- N = number of responses

The following scale was used to interpret the result.

Table 3. Mean Range Interpretation Used in Determining the level of Usability and user Satisfaction.

Mean Range	Interpretation
4.21 – 5.00	Very High
3.41 – 4.20	High
2.61 – 3.40	Moderate
1.81 – 2.60	Low
1.00 – 1.80	Very Low

3.11.3. Pearson Product-Moment Correlation Coefficient

The Pearson Product-Moment Correlation Coefficient (Pearson r) was used to determine the significant relationship between the usability of the PRISM Web Application and user satisfaction among USTP students.

$$r = \frac{SSxy}{\sqrt{SSxx * SSyy}}$$

Where:

$$SSxy = \sum xy - \frac{(\sum x)(\sum y)}{n}$$

$$SSxx = \sum x^2 - \frac{(\sum x)^2}{n}$$

$$SSyy = \sum y^2 - \frac{(\sum y)^2}{n}$$

- r = correlation coefficient
- x = usability scores
- y = user satisfaction scores
- n = number of respondents

3.12. Hypothesis Testing

The study tested the following hypotheses:

H_0: There is no significant relationship between usability and user satisfaction.

H_1: There is a significant relationship between usability and user satisfaction.

The level of significance was set at $\alpha = 0.05$.

Decision Rule:

- If ***p-value*** ≤ 0.05, reject H_0
- If ***p-value*** > 0.05, do not reject H_0

Table 4. Interpretation of Pearson Product-Moment Correlation Coefficient (Pearson r)

r-Value	Interpretation
0.80 – 1.00	Very Strong
0.60 – 0.79	Strong
0.40 – 0.59	Moderate
0.20 – 0.39	Weak
0.00 – 0.19	Very Weak

Error Consideration

- Type I Error – rejecting the null hypothesis when it is true
- Type II Error – failing to reject the null hypothesis when it is false

4.0. Results and Discussion

4.1. Profile of Respondents

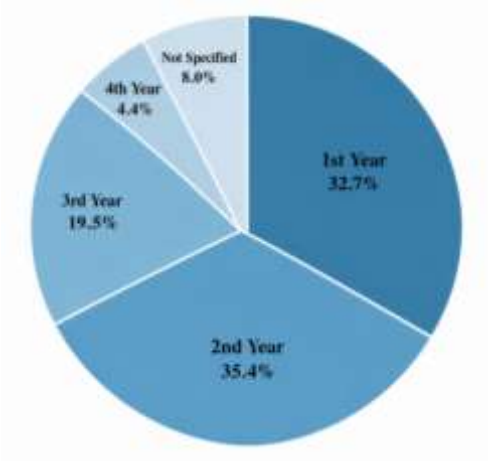

Figure 1. Distribution of Respondents According to Year Level Among USTP Students

Figure 1 presents the distribution of respondents according to year level. Most respondents belong to the 2nd year category which makes up 35.4% of the total while 1st year students follow with 32.7%. The 3rd year student group makes up 19.5% of the respondents while 4th year students form the smallest group at 4.4%. In addition, 8.0% of the respondents did not specify their year level.

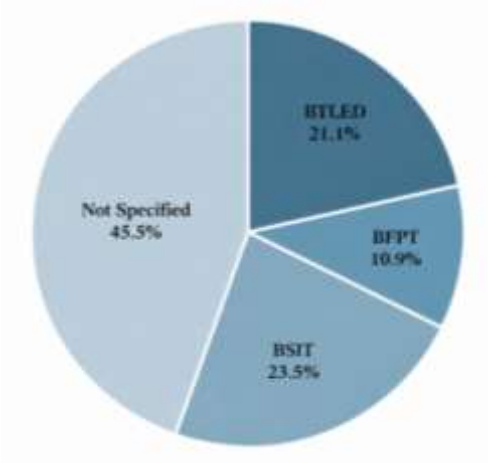

Figure 2. Distribution of Respondents According to Program or Course Among USTP Students.

Figure 2 presents the distribution of respondents according to program or course. Most respondents did not specify their program, comprising 45.5 % of the total. Among those who provided their program, BSIT students make up 23.5% of the respondents, followed by BTLED students at 21.1%, while BFPT students account for 10.9% of the total.

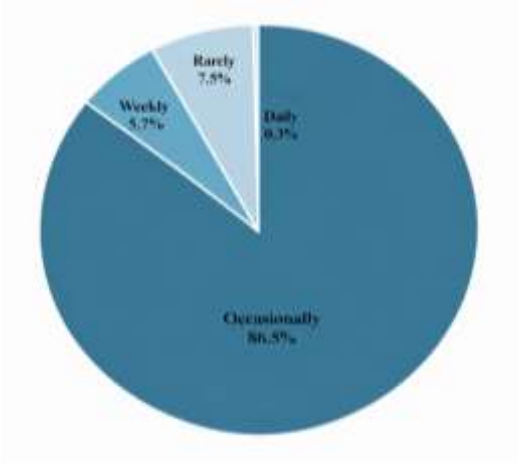

Figure 3. Frequency of Use of the PRISM Web Application Among USTP Students.

Figure 3 presents the frequency of use of the PRISM Web Application among USTP students. Most respondents reported using the system occasionally, comprising 86.5% of the total. This is followed by those who rarely use the system at 7.5%, weekly users at 5.7%, and daily users representing the smallest group at 0.3%.

4.2. Usability of the PRISM Web Application

Table 5. Level of Usability of the PRISM Web Application Based on the Responses of USTP Students

Indicator	Indicator	Interpretation
Q1 Easy to use	4.29	Very High
Q2 Clear interface	4.24	Very High
Q3 Easy navigation	4.06	High
Q4 Access to subjects	4.24	Very High
Q5 Access to grade	4.42	Very High
Q6 Access to announcements	4.04	High
Q7 Monitor academic info	4.21	Very High
Q8 System functionality	4.22	Very High
Overall Mean	4.22	Very High

The table 5 shows how usable the PRISM Web Application functions. The overall mean of 4.22 shows that the system has a very exceptional level of usability. Among the indicators Q5 achieved the highest average score of 4.42 which shows that respondents strongly agree the system provides grade access. The Q6 question received the lowest average score of 4.04 which shows that users achieved high access to announcements but they reported lower satisfaction with this feature than they did with other system functions. The research results show that the PRISM Web Application has high usability because most users find the system easy to use and they can access all its functions.

4.3. User Satisfaction of the PRISM Web Application

Table 6. Level of User Satisfaction of the PRISM Web Application Among USTP Students

Indicators	Mean	Interpretation
Q9 Overall satisfaction	4.24	Very High
Q10 Provides academic information	4.20	High
Q11 Used for academic updates	4.19	High
Q12 Comfort in using the system	4.21	Very High
Q13 Platform for academic use	4.15	High
Q14 Part of academic monitoring	4.11	High
Q15 Willingness to continue use	4.31	Very High
Overall Mean	4.20	High

The table 6 presents the level of user satisfaction of the PRISM Web Application. The overall mean of 4.20 indicates a high level of satisfaction among the respondents. The respondents showed the strongest inclination to use the system continuously according to Q15 (Willingness to continue use) which achieved a mean score of 4.31. The system received positive user feedback which resulted in system acceptance by users. The lowest mean score for Q14 (Part of academic monitoring) reached 4.11 yet this value still represented high performance according to users. The system currently achieves basic integration into student academic work yet there exist opportunities to develop it into a vital component which students would use more frequently. The results show that students are satisfied with the PRISM Web Application because the system supports their academic needs and meets their expectations.

4.4. Significance Relationship Between Usability and User Satisfaction.

Table 7. Test of significance relationship between usability and user satisfaction of the PRISM Web Application.

Variables	r-value	p-value	Interpretation	Decision
Usability vs Satisfaction	0.828	0.000	Very Strong Positive Relationship	Reject H_0

The table 7 displays the outcomes of a Pearson Product-Moment Correlation study which examined the connection between usability and user satisfaction. The calculated correlation coefficient which equals 0.828 shows that the two variables have a very strong positive connection. The p-value of 0.000 which was calculated shows statistical significance because it falls below the significance threshold of 0.05. The null hypothesis therefore receives rejection. The finding shows that USTP students experience higher user satisfaction when PRISM Web Application usability reaches better performance levels.

Table 8. Summary of Computation

Component	Value
Number of respondent (n)	1,000
$\sum x$ (Usability)	4, 215.375
$\sum y$ (Satisfaction)	4,202.429
$\sum xy$	17, 978.768
$\sum x^2$	18, 055.672

$\sum y^2$	18, 015.449
SSxy	263.956
SSxx	286.285
SSyy	355.043
R	0.828

The table 8 shows all the computational values needed to calculate the Pearson Product-Moment Correlation Coefficient between usability and user satisfaction. The table includes the number of respondents (n = 1,000), the total of usability scores ($\sum x$ = 4,215.375), the total of user satisfaction scores ($\sum y$ = 4,202.429), the total of x and y score products ($\sum xy$ = 17,978.768), the total of squared usability scores ($\sum x^2$ = 18,055.672), and the total of squared satisfaction scores ($\sum y^2$ = 18,015.449). The study calculated the sum of squares for the xy variable (SSxy = 263.956), the sum of squares for the x variable (SSxx = 286.285), and the sum of squares for the y variable (SSyy = 355.043) using these values. The application of these values to the Pearson r formula resulted in a correlation coefficient of r = 0.828, which shows a very strong positive relationship between the two variables.

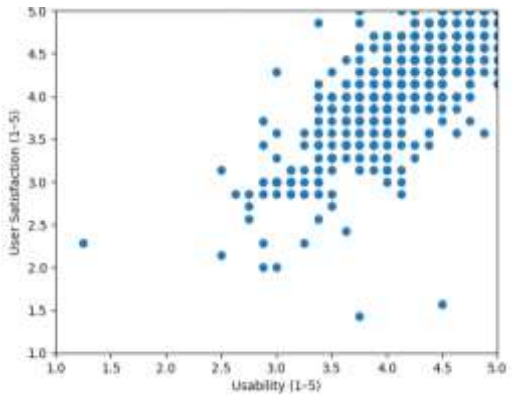

Figure 4. Scatter Plot Showing the Relationship Between Usability and User Satisfaction.

Figure 4 presents a scatter plot showing a clear upward trend, indicating a strong positive relationship between usability and user satisfaction. Most data points are clustered along an increasing pattern, which suggests that higher usability scores are associated with higher levels of user satisfaction. This visual representation supports the computed Pearson correlation coefficient (r = 0.828), indicating a very strong positive relationship.

5.0. Summary, Conclusion and Recommendations

5.1. Summary

This study was conducted to assess the usability of the PRISM Web Application and to determine its relationship with user satisfaction among students of the University of Science and Technology of Southern Philippines (USTP). Specifically, the study aimed to describe the profile of the respondents, determine the level of usability of the PRISM Web Application, determine the level of user satisfaction, and examine the significant relationship between usability and user satisfaction.

The findings revealed that the respondents were composed of students from various year levels and academic programs who have utilized the PRISM Web Application. The level of usability of the system obtained an overall

mean of 4.22**,** which is interpreted as very high, indicating that the application is generally perceived as easy to use, accessible, and functional. Meanwhile, the level of user satisfaction yielded an overall mean of 4.20, interpreted as high, suggesting that the respondents are generally satisfied with their experience in using the system. Furthermore, the Pearson Product-Moment Correlation analysis revealed a computed r-value of 0.828, indicating a very strong positive relationship between usability and user satisfaction. The computed p-value of 0.000, which is less than the level of significance ($\alpha = 0.05$), indicates that the relationship is statistically significant. Thus, the null hypothesis was rejected.

5.2. Conclusion

The study assessed the usability and user satisfaction of the PRISM Web Application among students at the University of Science and Technology of Southern Philippines (USTP). The study found that the PRISM system demonstrated extremely high usability (M = 4.22) and the system achieved user satisfaction at a high level (M = 4.20). The Pearson Product-Moment Correlation analysis produced an r-value of 0.828 which demonstrated a very strong positive relationship between usability and user satisfaction, while the p-value of 0.000 demonstrated statistical significance at $\alpha = 0.05$ thus leading to the rejection of the null hypothesis. The results show that when usability improves, user satisfaction also increases, which confirms that the PRISM Web Application efficiently provides academic services while users need better navigability and information access to improve their overall experience.

5.3. Recommendations

Based on the findings and conclusions of the study, the following recommendations are proposed to further improve the usability and user satisfaction of the PRISM web application:

- **Improvement in the Performance of the System**

Though the level of performance of the PRISM system is high according to the usability score (M=4.22), yet the need for continuous improvement remains imperative in order to ensure further performance. Improvement in navigation, reduction in delay and enhancement in academic information access would contribute to this end.

- **User Satisfaction Improvement through Usability**

Given the strong positive relationship between usability and user satisfaction (r = 0.828), improving usability features should remain a priority. Simplifying system processes, refining interface design, and ensuring user-friendly interactions are expected to further increase user satisfaction.

- **Features Development and Accessibility**

Although the system has been rated highly in terms of user satisfaction (M = 4.20), future features to be added in it might include real time notification, accessibility on cell phones, and increased availability of information regarding announcements and grades.

Declarations

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Competing Interests Statement

The authors have declared that no competing financial, professional or personal interests exist.

Consent for publication

All authors contributed to the manuscript and consented to the publication of this research work.

Availability of data and material

Supplementary information such as the raw files of the data gathering and data analysis are available from the authors upon reasonable request.

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